

42

SPLIT

| | | | |
|---|--|--------------|--------------|
| DART AEROSPACE LTD | | Work Order: | 21334 A |
| Description: Fuel Purge Canister Installation | | Part Number: | D412-706-011 |
| Dwg: | | Qty: | 2 |
| | | Page 1 of 1 | |

| Step | Location | Procedure | By | Date | Qty |
|------|----------|--|-----|-------------------------------------|-----|
| 1 | DC | Issue Traveler | JA | 04.09.09 | 2 |
| 2 | DC | Photocopy bluefile and create labels per PPP D412-706-011 CHG001 N/A JA | JA | NO PAPERWORK AVAILABLE yet 04.11.05 | |
| 3 | PK | Pick: Packing Kit Qty Part Number Description Batch 1 D2001-4 Valve Assembly x M13992 1 D3262-041 Canister Assembly x B21310 2 D3264-1 Bracket x B21533 1 D3297-1-0098 Hose Assembly x B21534 1 D3297-3-0085 Hose Assembly x B21311 1 D3297-3-0210 Hose Assembly x B21314 1 D3298-001- Tube Assembly x B21315 1 D3298-003- Tube Assembly x B21535 1 D3298-005- Tube Assembly x B21536 1 D3298-007- Tube Assembly x B21537 1 D3298-009- Tube Assembly x B21538 1 D3299-1 Fitting x B21539 1 D3299-3 Fitting x B21540 1 D3299-5 Fitting x B21541 1 D3301-1 Placard x B21542 1 D3301-3 Placard x B21308 1 D3302-1 Doubler x B21309 1 D3302-3 Doubler x B21543 4 AN3-5A Bolt x m14526 B21544 5 AN6289-6D Nut x m15505 1 AN814-6D Plug x m15702 1 AN815-6D Union x m15505 1 AN832-6D Union x m15505 2 AN833-6D Elbow x m15505 1 AN834-6D Tee x m15505 1 AN924-6D Nut x M21 1 AN938-6D Tee x m15702 2 B21302-32 Bussing x B21398A | | | |
| 4 | QC4 | Inspect Kit 100% for Completeness on the W/O | ml | 04.11.03 | 1 |
| 5 | PK | Identify and pack for shipping as per PPP D412-706-011 Draft | CL | 04.11.04 | 1 |
| 6 | AC | Cost / part: 756.64 | Syc | 04.11.05 | 1 |
| 7 | DC | Close W/O 756.64 Inspect Level 21 | JA | 04.11.05 | 1 |

| Rev | Date | Change | Revised By | Approved |
|-----|----------|-----------|------------|----------|
| A | 04.09.09 | New Issue | KJ/JLM | JA |

B21302-32 Bussing x B21398A

RELEASED

JA 04.09.09

Dart Aerospace Ltd

| Work Order: | | WORK ORDER CHANGES | | | | | | | |
|-------------|------|--------------------|--------------------|--------------------|--------------|------|----------|-----------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | | | By | Date | Qty | Approval Manuf / Design Mgr | Approval QC Inspector |
| 04.10.13 | 3 | <u>Q67</u> | <u>Part Number</u> | <u>Description</u> | <u>Batch</u> | | | | |
| | | 1 8 | AN9603D10 X | WASHER | m15321 | | | | |
| | | 1 4 | AN9603D916 X | WASHER | m15505 | | | | |
| | | 1 4 | MS21042L3 X | NUT | m15066 | | | | |
| | | 1 2 | MS21919WDG12 X | CLAMP | m5867 | | | | |
| | | 1 2 | MS21919WDG9 X | CLAMP | m5866 | | | | |
| | | X 2 | MS21920-42 X | CLAMP | m16037 | | | | |
| | | 1 7 | MS28778-6 X | O-RING | m11492 | | | | |
| | | 1 3 | MS35459-11 X | GROMMET | m15505 | | | | |
| | | | D2182-025 | Hose/shrink | B17067 | | | | |
| | | | | | | C2 | 04/10/13 | 1 | |

| NCR | | WORK ORDER NON-CONFORMANCE | | | | | | |
|------|------|--------------------------------|--------------------------------|--|----------------|---------------------------|------------------------|--------------------------|
| DATE | STEP | Description of NC section A | Corrective Action Section B | | Sign & Date | Verification Section C | Approval Design Mgr | Approval QC Inspector |
| | | | Initial | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

PAR#: _____ Fault Category: _____ DQA: _____ Date: _____

NOTE: Date & initial all entries
H:\Admin-QA\ISO\forms\w\oncb.doc

QA: N/C Closed: _____ Date: _____

Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Aug 17, 2004
11:53 am

Work Order No : 0021334
Project Name : D412-706-011
Project For : WK442
Work Order Type : Main
Main WO Number :
House Part Number : *D412-706-011
Description : Fuel Purge Canister Kit
Manufactured : Yes
Amount Req'd : 2
Amount Done : 0
Start Date : 08-16-04
Est Finish Date : 10-14-04
Act Finish Date :
Drawings Req'd : No
Ok for Approval :
Approval Rec'd :

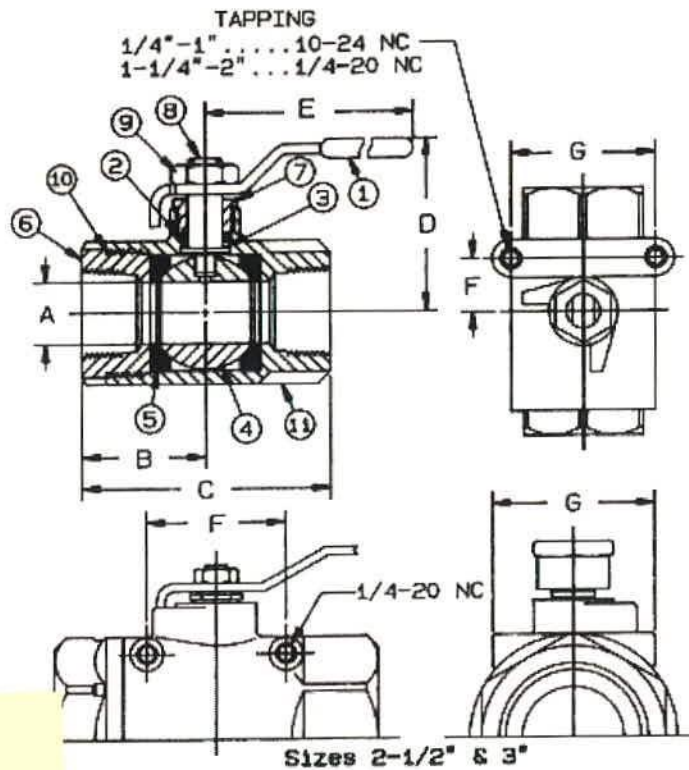
Department Code:
Burden Flags : NNNNNNNN
WO Status : Open
Invoice State : Not Invoiced
Invoice Date :
Invoice Number :
Invoice Amount : 0.00
Order Entry No :
OE Value : 0.00
Est Margin : 0.000%
Actual Margin : 0.000%
\$0 Posted to Finished Goods

| | Estimated | Actual | Var. % | Posted | To Post |
|---------------------|-----------|--------|--------|--------|---------|
| Material Cost : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Engineering Hours : | 0.00 | 0.00 | 0.00 | | |
| Engineering Cost : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Production Hours : | 0.00 | 0.00 | 0.00 | | |
| Production Cost : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Packaging Hours : | 0.00 | 0.00 | 0.00 | | |
| Packaging Cost : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| OverHead Hours : | 0.00 | 0.00 | 0.00 | | |
| OverHead Cost : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CNC Hours : | 0.00 | 0.00 | 0.00 | | |
| CNC : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Misc. Hours : | 0.00 | 0.00 | 0.00 | | |
| Misc. : | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Burden : | 0.00 | 0.00 | 0.00 | | |
| Total Cost : | 0.00 | 0.00 | 0.00 | | |
| Margin : | 0.000 | 0.000 | | | |
| Selling Cost : | 0.00 | 0.00 | | | |

| | Estimated | Actual |
|--------------------------|-----------|--------|
| Labour Hrs/Amount Done : | 0.00 | 0.00 |
| Profits/(Loss) : | 0.00 | 0.00 |

| | |
|----------|-----------|
| 11. Body | A351-CF8M |
|----------|-----------|

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Q/N 76-101-32

T

C

L

D

handp
 M13992

2006705

5802
 KAT

| Part No. | Size in./mm | A in./mm | B in./mm | C in./mm | D in./mm | E in./mm | F in./mm | G in./mm | Weight |
|-----------|----------------|-----------------|-----------------|------------------|-----------------|------------------|-----------------|-----------------|--------|
| 76-101-01 | 1/4 8 | 0.370 9.398 | 1.030 26.162 | 2.060 52.324 | 1.750 44.450 | 3.870 98.298 | 0.500 12.700 | 1.120 28.448 | 0.580 |
| 76-102-01 | 3/8 10 | 0.370 9.398 | 1.030 26.162 | 2.060 52.324 | 1.750 44.450 | 3.870 98.298 | 0.500 12.700 | 1.120 28.448 | 0.540 |
| 76-103-01 | 1/2 15 | 0.500 12.700 | 1.120 28.448 | 2.250 57.150 | 1.810 45.974 | 3.870 98.298 | 0.500 12.700 | 1.120 28.448 | 0.630 |
| 76-104-01 | 3/4 20 | 0.680 17.272 | 1.500 38.100 | 3.000 76.200 | 2.120 53.848 | 4.870 123.698 | 0.870 22.098 | 1.370 34.798 | 1.270 |
| 76-105-01 | 1 25 | 0.870 22.098 | 1.680 42.672 | 3.370 85.598 | 2.250 57.150 | 4.870 123.698 | 0.870 22.098 | 1.370 34.798 | 1.630 |
| 76-106-01 | 1-1/4 32 | 1.000 25.400 | 2.000 50.800 | 4.000 101.600 | 2.620 66.548 | 5.500 139.700 | 0.930 23.622 | 1.500 38.100 | 3.060 |
| 76-107- | 1-1/2 | 1.250 | 2.180 | 4.370 | 3.050 | 8.000 | 0.930 | 1.500 | |

| | | | | | | | | | |
|-----------|-------------|-----------------|-----------------|------------------|------------------|------------------|-----------------|-----------------|--------|
| 01 | 40 | 31.750 | 55.372 | 110.998 | 77.470 | 203.200 | 23.622 | 38.100 | 4.040 |
| 76-108-01 | 2 50 | 1.500 38.100 | 2.750 69.850 | 5.500 139.700 | 3.240 82.296 | 8.000 203.200 | 0.930 23.622 | 1.500 38.100 | 6.050 |
| 76-109-01 | 2-1/2 65 | 2.500 63.500 | 3.370 85.598 | 6.750 171.450 | 4.120 104.648 | 8.000 203.200 | 2.750 69.850 | 3.370 85.598 | 15.570 |
| 76-100-01 | 3 80 | 2.500 63.500 | 3.370 85.598 | 6.750 171.450 | 4.120 104.648 | 8.000 203.200 | 2.750 69.850 | 3.370 85.598 | 16.790 |

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Options

Option Explanations »

| (SUFFIX) | OPTION | SIZES |
|----------|------------------------------------|------------|
| -02- | Static Grounded | 1/4" to 3" |
| -03- | 1-1/4" Stem Extension | 1/4" to 3" |
| -04- | 2-1/4" Stem Extension | 1/4" to 3" |
| -07- | Tee Handle | 1/4" to 2" |
| -08- | 90° Reversed Stem | 1/4" to 3" |
| -14- | Vented Ball | 1/4" to 2" |
| -15- | Round Handle | 1/4" to 2" |
| -16- | Vertical Chain Lever | 3/4" to 2" |
| -19- | Lock Plate | 1/4" to 2" |
| -21- | UHMWPE Seats (NON-PTFE) | 1/4" to 3" |
| -24- | Graphite Stem Packing | 1/4" to 3" |
| -27- | Latch Lock Lever | 1/4" to 3" |
| -30- | CamLock Handle | 1/4" to 2" |
| -32- | SS Tee Handle & Nut | 1/4" to 2" |
| -35- | PTFE Trim | 1/4" to 3" |
| -36- | SS Hi-Rise Round Handle & Nut | 1/4" to 2" |
| -39- | SS Latch Lock Wheel Handle | 1/4" to 2" |
| -40- | Cyl-Loc | 1/4" to 2" |
| -44- | Seal Welded | 1/4" to 2" |
| -45- | Less Lever & Nut | 1/4" to 3" |
| -46- | Latch Lock Lever - Lock Close Only | 1/4" to 3" |
| -47- | SS Latch Lock Oval Handle | 1/4" to 1" |
| | | |

| | | |
|-------|-----------------------------------|------------|
| -48- | SS Oval Handle | 1/4" to 2" |
| -49- | Assembled Dry | 1/4" to 3" |
| -50- | 2-1/4" Locking Stem Extension | 1/4" to 3" |
| -57- | Cleaned For Gaseous Oxygen | 1/4" to 3" |
| -58- | Horizontal Chain Lever | 3/4" to 2" |
| -60- | Static Grounded Ball & Stem | 1/4" to 3" |
| -64- | 250 Lb. Steam Trim | 1/4" to 3" |
| -P01- | BSPP (Parallel) Thread Connection | 1/4" to 3" |
| -T01- | BSPT (Tapered) Thread Connection | 1/4" to 3" |

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[◀ Products : Ball Valves : Steel : Two-Piece : 76-100 \(1/4" to 3"\)](#)
[technical search ▶](#)
[GO](#)

76-100 (1/4" to 3") Stainless Steel Ball Valve

Sizes: 1/4" to 3"
Ends: Threaded

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[Features >](#)
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[Dimensions >](#)
[Available Options >](#)
[Temperature Curves >](#)

[--> Downloadable PDF's ▼](#)

Features

- Investment cast components
- RPTFE seats and stuffing box ring
- Mounting pad for easy actuator mounting
- Blow-out-proof stem design
- Adjustable packing gland
- Meets NACE MR-01-75
- SS lever and nut
- (-24) 1/4" to 2" Certified to API 607, 4th Edition, Class 600 burn
- MSS SP-110; ball valves, threaded, socket-welding, solder joint, grooved and flared ends
- Pressure Ratings:
 - 1/4" to 1" 2000 psig WOG
 - 1-1/4" to 2" 1500 psig WOG
 - 2-1/4" to 3" 1000 psig WOG
 - Cold Non-Shock
 - 150 psig Saturated Steam

Materials

| Part | Material |
|----------------------------|---|
| 1. Lever and grip | 304 SS w/vinyl |
| 2. Stem packing | RPTFE |
| 3. Stem bearing | RPTFE |
| 4. Ball | A276-316 |
| 5. Seat (2) | RPTFE |
| 6. Retainer | A276-316 (1/4" to 1") A351-CF8M 8 (1-1/4" TO 3") |
| 7. Gland Nut | A276-316 |
| 8. Stem | A276-316 |
| 9. Lever nut | 18-8 SS |
| 10. Body seal 1-1/4" to 3" | PTFE |

D3297-1-0130 (-013 CONFIG A)
 D3297-1-0121 (-013 CONFIG B)
 D3297-3-0210 (-011 CONFIG A)
 D3297-3-0085 (-011 CONFIG B)

AN833-6D ELBOW (1)
 AN6289-6D NUT (1)
 MS28778-6 O-RING (1)

D3298-001 TUBE ASSEMBLY
 (FOR -011 CONFIG B AND
 -013 CONFIG A/B) OR
 D3298-003 TUBE ASSEMBLY
 (FOR -011 CONFIG A)

MS21920-41 CLAMPS
 D3264-1 BRACKETS
 MIN 6.0" APART

AN6289-6D NUT (1)
 MS28778-6 O-RING (1)

D3299-3 FITTING (1)

AN815-6D UNION (1)
 MS28778-6 O-RING (1)

D3299-1 FITTING (1)

D3262-041
 CANISTER ASSY

AN814-6D PLUG (1)
 MS28778-6 O-RING (1)

D2001-4 VALVE ASSEMBLY (1)

D3298-009 TUBE ASSEMBLY

REFERENCE ONLY

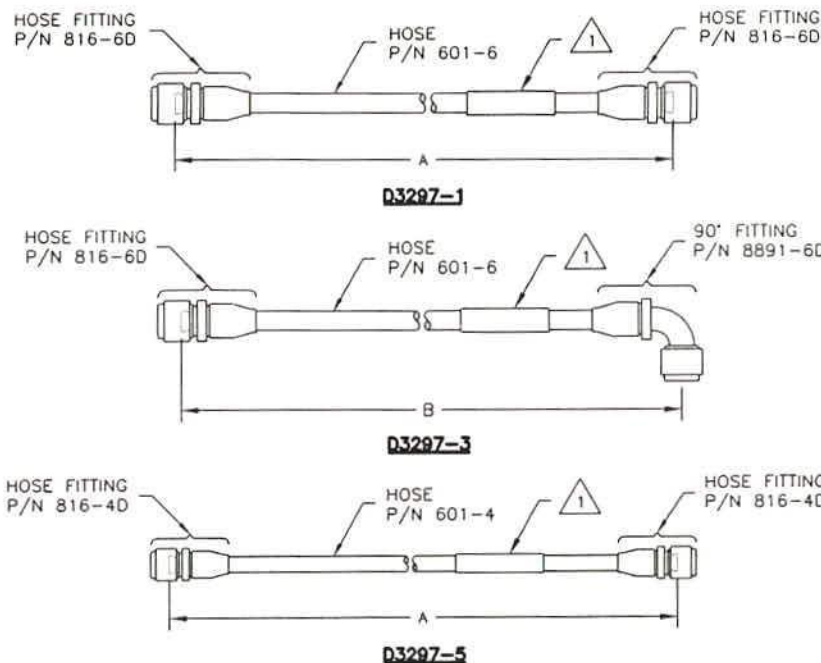
5. PARTS LIST

| Qty -011 | Qty -013 | Qty -015 | Part Number | Description |
|-------------|-------------|-------------|--------------|--|
| X | | | D412-706-011 | FUEL PURGE CANISTER INSTALLATION (212/412) |
| | X | | D205-706-013 | FUEL PURGE CANISTER INSTALLATION (205/214) |
| | | X | D204-706-015 | FUEL PURGE CANISTER INSTALLATION (204) |
| 1 | 1 | 1 | D2001-4 | VALVE ASSEMBLY |
| | | 2 | D2026-101 | SCREW |
| 1 | 1 | 1 | D3262-041 | CANISTER ASSEMBLY |
| 2 | 2 | 2 | D3264-1 | BRACKET |
| 1 | | | D3297-1-0098 | HOSE ASSEMBLY |
| | 1 | | D3297-1-0121 | HOSE ASSEMBLY |
| | 1 | | D3297-1-0130 | HOSE ASSEMBLY |
| 1 | | | D3297-3-0085 | HOSE ASSEMBLY |
| 1 | | | D3297-3-0210 | HOSE ASSEMBLY |
| | 1 | | D3297-3-0350 | HOSE ASSEMBLY |
| | | 1 | D3297-5-0410 | HOSE ASSEMBLY |
| 1 | 1 | | D3298-001 | TUBE ASSEMBLY |
| 1 | | | D3298-003 | TUBE ASSEMBLY |
| 1 | | | D3298-005 | TUBE ASSEMBLY |
| 1 | | | D3298-007 | TUBE ASSEMBLY |
| 1 | 1 | | D3298-009 | TUBE ASSEMBLY |
| | | 1 | D3298-011 | TUBE ASSEMBLY |
| | | 1 | D3298-013 | TUBE ASSEMBLY |
| | | 1 | D3298-015 | TUBE ASSEMBLY |
| 1 | 1 | 1 | D3299-1 | FITTING |
| 1 | 1 | 1 | D3299-3 | FITTING |
| 1 | | | D3299-5 | FITTING |
| 1 | 1 | 1 | D3301-1 | PLACARD |
| 1 | 1 | 1 | D3301-3 | PLACARD |
| 1 | 1 | | D3302-1 | DOUBLER |
| 1 | 1 | | D3302-3 | DOUBLER |
| | | 1 | D3302-5 | DOUBLER |
| | | 2 | D3302-7 | DOUBLER |
| 2 | | | D3329-1 | BUSHING |
| 4 | 4 | 4 | AN3-5A | BOLT |
| 5 | 1 | 1 | AN6289-6D | NUT |
| 1 | 1 | 1 | AN814-6D | PLUG |
| 1 | 2 | 2 | AN815-6D | UNION |
| | | 1 | AN816-6D | NIPPLE |
| 1 | | | AN832-6D | UNION |
| 2 | 3 | 1 | AN833-6D | ELBOW |
| 1 | | | AN834-6D | TEE |
| | | 1 | AN919-6D | REDUCER |
| 1 | 1 | | AN924-6D | NUT |



| | | | |
|------------------------|-------------------------|--|------------------------|
| DESIGN [Signature] | DRAWN BY [Signature] | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| CHECKED [Signature] | APPROVED [Signature] | DRAWING NO. D3297 | REV. A SHEET 1 OF 1 |
| DATE 04.07.06 | | TITLE HOSE ASSEMBLIES | SCALE NTS |
| A | 04.07.06 | NEW ISSUE | |

RELEASED
04.04.07 #



| HOSE SPECIFICATION | | | | |
|--------------------|---------------|--------|-------|-------|
| DART P/N | AEROQUIP P/N | VENDOR | A | B |
| D3297-1-0098 | 601000-6D0098 | API | 9.75 | |
| D3297-1-0130 | 601000-6D0130 | API | 13.00 | |
| D3297-1-0121 | 601000-6D0121 | API | 12.13 | |
| D3297-3-0085 | 601002-6D0084 | API | | 8.50 |
| D3297-3-0210 | 601002-6D0210 | API | | 21.00 |
| D3297-3-0350 | 601002-6D0350 | API | | 35.00 |
| D3297-5-0410 | 601000-4D0410 | API | 41.00 | |

D3297-1-XXXX HOSE ASSEMBLY } WHERE XXXX REPRESENTS
D3297-3-XXXX HOSE ASSEMBLY } HOSE LENGTH IN TENTHS OF INCH
D3297-5-XXXX HOSE ASSEMBLY }

EG: 12.125" LONG: D3297-1-0121
41.00" LONG: D3297-5-0410
8.50" LONG: D3297-3-0850

NOTES:

- 1) IDENTIFY WITH DART P/N & B/N USING D2729-1 LABEL INSTALLED WITH D2182-045 HEAT SHRINK
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

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